Trick or Treat: Mining GED Ready® Score Reports

A Workshop from GED Testing Service
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The PD Team

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Session Objectives

• Analyze real GED Ready® Score Reports
• Discuss the why and how of using score reports (as prescriptions) to drive instruction
• Share ideas and resources
How And When Do YOU Use Score Reports?

GED Ready® - Reasoning Through Language Arts

My Score: 139
TOO CLOSE TO CALL
Test Date: 05/17/2016

How I Can Score Higher

Reading for Meaning
Skill You Can Improve Publisher Study Recommendations
• Analyze how details develop the main idea (Example: causes, reasons) Select your study material from the dropdown above to get study recommendations
• Analyze how the organization of a paragraph or passage supports the author’s ideas
• Infer the author’s purpose when it is or is not stated
• Understand how the use of words, phrases, or figurative language influences the author’s intent
• Make inferences about plots, sequence of events, characters, settings, and ideas
Common Uses

• Look at the score only…to gauge how far from 145 the score is
• Get a feel for what work needs to be done (in terms of skills and content)
• If applicable, compare the GED Ready® and the GED® operational test scores for similarities and differences
• Don’t really use the score report—consider the feedback “too generic”
Why Focus on GED Ready® Score Reports?

• Highly predictive of operating test performance
• Report format is identical to the operational content area tests
• Half-length
• Potential to identify weaknesses before operational testing—allowing for better outcomes and more test-taker confidence
• Feedback for corrective action
# Overview of the Enhanced Score Report

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>GED® TEST</th>
<th>GED READY® PRACTICE TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My Score</strong></td>
<td>Indicates if a test-taker passed, passed with honors, or scored below passing.</td>
<td>Indicates if a test-taker is likely to pass, too close to call, or not likely to pass the GED® test.</td>
</tr>
<tr>
<td><strong>How I Can Score Higher</strong></td>
<td>Shows the skills a test-taker needs to work on before trying again. Includes a personalized study plan with pages and chapters to review in popular study materials.</td>
<td>Shows the skills a test-taker needs to work on before taking the GED® test. Includes a personalized study plan with pages and chapters to review in popular study materials.</td>
</tr>
<tr>
<td><strong>What My Score Means</strong></td>
<td>Explains what skills the student successfully demonstrated on the GED® test</td>
<td>Explains what skills the student successfully demonstrated on the GED Ready® practice test.</td>
</tr>
<tr>
<td><strong>Review My Written Answers</strong></td>
<td>Available for the RLA test subject. Shows the students’ scores for their responses and the skills they need to work on to score higher. Not available for Science, Social Studies, or Math subjects.</td>
<td>Displays the test-taker’s written responses to extended response items. Educators can use the constructed response scoring tools to give test-takers feedback on their responses.</td>
</tr>
</tbody>
</table>
So...How Can You “Build” a Passer?
## Some Advice

- Spend the time to review score reports in some detail to use the feedback about the skills consistently demonstrated.
- If you can—compare student results to determine similarities and differences in what skills need development.
- Use the score reports to have conversations with students about when to re-test.
- Remember to select publisher materials for detailed “prescriptions.”

- Encourage students to see beyond their disappointment.
- Ensure that YOU model resilience.
- Don’t be discouraged—or allow students to be discouraged—by the number of items listed as needing improvement.
- Focus on introducing constructive strategies for grouping and developing skills.
Building a Passer

WHY? + HOW? + PRACTICE = CONFIDENCE + SKILL

INSTRUCTION
Protocol for Action

**Action Plan**

<table>
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<tr>
<th>Review</th>
<th>Diagnose</th>
<th>Prescribe</th>
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</table>

- Categorize the feedback
- Be concrete
- Make connections

What does the feedback say about student performance?

What learning experiences are needed for improvement?
Before Diving In…

A short reminder about the importance of reading skills…

Reading…

• Is fundamental
• Is essential for developing or enhancing higher order thinking skills (e.g. critical thinking, problem solving, and reasoning)
• Is at the heart of all content—without reading skills, content cannot be accessed or learned
• Provides the necessary framework that enables learning
Proficient Readers (and Writers) Can…

• Read complex text
• Identify text structure
• Look for key words and phrases
• Unpack the prompt
• Develop a claim or argument
• Find the evidence that supports that claim or argument
• Analyze and evaluate the evidence
• Explain how the evidence is connected to the claim or argument

This holds true across all content areas
What Instructors Need to Know:

Reasoning Through Language Arts
Overview of RLA Test

- Content - Integrated reading and writing
  - Close reading
  - Clear writing
  - Editing and understanding the use of standard written English in context
- Source texts – 75% nonfiction; 25% fiction
- Passage length – 400-900 words
- Range of text complexity, including texts at the college- and career-ready level
- Technology-enhanced items and extended response
A GED Ready® Score Report: Yellow Zone Alert

GED Ready® - Reasoning Through Language Arts

**My Score: 139**
TOO CLOSE TO CALL
Test Date: 01/17/2018

How I Can Score Higher

### Reading for Meaning

#### Skill You Can Improve

- Analyze how details develop the main idea (Example: causes, reasons)
- Analyze how the organization of a paragraph or passage supports the author's ideas
- Infer the author's purpose when it is or is not stated
- Understand how the use of words, phrases, or figurative language influences the author's intent
- Make inferences about plots, sequence of events, characters, settings, and ideas

Publisher Study Recommendations 🔗
Select your study material from the dropdown above to get study recommendations

https://app.ged.com/portal/scoreReport?examResultId=8882147
<table>
<thead>
<tr>
<th>Skill You Can Improve</th>
<th>Publisher Study Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze how an author uses rhetorical techniques (Example: imagery, irony, analogies, repetition, qualifying statements)</td>
<td></td>
</tr>
<tr>
<td><strong>Identifying and Creating Arguments</strong></td>
<td></td>
</tr>
<tr>
<td>Understand main ideas and details</td>
<td></td>
</tr>
<tr>
<td>Determine the main idea</td>
<td></td>
</tr>
<tr>
<td>Identify the relationship between the main idea and details</td>
<td></td>
</tr>
<tr>
<td>Identify evidence used to support a claim or conclusion</td>
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</tbody>
</table>

**Additional Skills to Work On**

Scoring into the Green Zone on the GED Ready® practice test shows that you are likely to pass the GED® test. In order to progress into the Green Zone, consider doing the following:

- Strengthen the skills listed in the Red and Yellow Zones and apply them to texts at a challenging level of complexity, such as Zora Neale Hurston’s *Their Eyes Were Watching God*, Martin Luther King Jr.’s *Letter from Birmingham Jail*, and Euclid’s *Elements*, with a particular focus on improving the following Yellow Zone skills:
  - Make generalizations or hypotheses based on evidence in a written source
  - Determine the author’s point of view or purpose
  - Analyze how an author uses rhetorical techniques
  - Correct errors with frequently confused words

Develop the following additional skills:
7/0/2016  

MyGED® Score Report

- Make a judgment about whether the evidence offered to support a claim is relevant and sufficient
- Eliminate run-on sentences, fused sentences, or sentence fragments

Please note that your projected score for Reasoning Through Language Arts of the GED® test is valid for 60 days from the date you took Reasoning Through Language Arts of GED Ready®. In addition, it assumes you took Reasoning Through Language Arts of GED Ready® in one sitting, under timed conditions, with no breaks. The projected score is only an indication of your preparedness for the actual GED® test and does not guarantee that you will actually obtain the projected score on the GED® test. See My Scores, “Review My Written Answers” page for detailed descriptions of typical written answers to Extended Response items that would meet the passing standard. Although the study recommendations listed on the “How I Can Score Higher” page may aid you in preparing for the GED® test, following these recommendations alone does not guarantee a positive result on the actual GED® test.
The GED Ready® RLA Score: 139
Areas for Improvement (Review)

• Reading for Meaning
  • Analyze how details develop the main idea (Example: causes, reasons)
  • Analyze how the organization of a paragraph or passage supports the author's ideas
  • Infer the author's purpose when it is or is not stated
  • Understand how the use of words, phrases, or figurative language influences the author's intent

• Make inferences about plots, sequence of events, characters, settings, and ideas
Score Report Feedback

• Analyze how details develop the main idea (Example: causes, reasons)
• Analyze how the organization of a paragraph or passage supports the author's ideas
• Understand how the use of words, phrases, or figurative language influences the author's intent

Diagnosis

• Close reading skills
• Ability to engage with text (e.g. noticing, wondering, questioning, relating, thinking, and on occasion, arguing)
• Inference (“reading between the lines”)
Diagnosis

In addition to building close reading skills…Our test-taker needs to work with

• Text structures (description, sequence, problem & solution, compare & contrast, and cause & effect) and signal words

• Evidence—and not just acquiring a broader definition of what evidence is…but ALSO how evidence is used as support for a position or conclusion in text
Addressing Areas for Improvement
The GED Ready® RLA Score: 139

Areas for Improvement

• **Identifying and Creating Arguments**
  • Understand main ideas and details
  • Determine the main idea
  • Identify the relationship between the main idea and details
  • Identify evidence used to support a claim or conclusion

• **Additional Skills**
  • Make generalizations or hypotheses based on evidence in a written source
  • Determine the author's point of view or purpose
  • Analyze how an author uses rhetorical techniques
  • Correct errors with frequently confused words
Diagnosis

In addition to building close reading skills…Our test-taker needs to work with

• Text structures (description, sequence, problem & solution, compare & contrast, and cause & effect) and signal words

• Evidence—and not just acquiring a broader definition of what evidence is…but ALSO how evidence is used as support for a position or conclusion in text
What Happens Next? (Prescribe)

How can we optimize performance given the available time?

• Performance Level Descriptors (PLDs for Level 1 - Not Passing and Level 2 – High School Equivalency)
• High Impact Indicators (HIIs)
• Remember to have students review the Study Guide from [https://ged.com/](https://ged.com/)
Getting Started with Content

High Impact Indicators

All of the indicators listed in the GED® Assessment Target indicators describe the critical thinking skills essential to test-taker success in college, career training, and the workforce. However, those we are highlighting in the High Impact Indicators may be useful for educators to emphasize in their instruction.

We selected the following skills as High Impact indicators because:

- They represent foundational skills that are the basis for development of other skills covered in the GED® Assessment Targets and have broad usefulness that can be applied in multiple contexts.
- They are a good fit for classroom instruction because they are not complicated but are important for students to know and use.
- GED® testing data suggests that educators may not be currently focusing on these skills in their GED® test preparation.

While focused classroom instruction on these High Impact Indicators may quickly and positively impact your students' test performance, educators should note that the High Impact Indicators are not more important than the rest of the indicators. Proficiency with all of the indicators is essential for test-takers to perform well on the GED® Test.

Reasoning Through Language Arts – High Impact Indicators

Revised 2016 GED® Test Performance Level Descriptors: Level 2 (Pass/High School Equivalency: 145-164)

<table>
<thead>
<tr>
<th>Reasoning Through Language Arts</th>
<th>Mathematical Reasoning</th>
<th>Science</th>
<th>Social Studies</th>
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GED TESTING SERVICE®
It Is All About the Relationships!

R.8.6: Identify an underlying premise or assumption in an argument and evaluate the logical support and evidence provided. Primarily measured with informational texts.

SSP.1 a. Determine the details of what is explicitly stated in primary and secondary sources and make logical inferences or valid claims based on evidence.

AS.1.a: Cite specific textual evidence to support inferences, conclusions, or analyses of technical texts.
Our “Too Close to Call” Test-Taker?

- The RLA test score was 137—consistent with the feedback from the GED Ready® RLA exam
- The operational exam feedback identified the following areas as needing improvement
  - Reading for Meaning
  - Identifying and Creating Arguments
  - Making Inferences
- Straight from the GED Ready® score report!
What Instructors Need to Know: Social Studies

Same Skills…Different Context
Overview of Social Studies Test

• Content
  • 50% - Civics and Government
  • 20% - United States History
  • 15% - Economics
  • 15% - Geography and the World

• Themes
  • Development of Modern Liberties and Democracy
  • Dynamic Responses in Societal Systems

• Social Studies Practices – analyzing, (critical) thinking, and reasoning

• Technology-enhanced question items
GED Ready® - Social Studies

My Score: 137
TOO CLOSE TO CALL
Test Date: 02/09/2018

How I Can Score Higher

Reading for Meaning in Social Studies

Skill You Can Improve

- Use details to make inferences or claims
- Compare information that differs between sources
- Determine the difference between fact and opinion

Publisher Study Recommendations

Select your study material from the dropdown above to get study recommendations.
### Skill You Can Improve

- Determine which evidence supports an inference
- Identify bias and propaganda (Example: appealing to a specific group's emotions)
- Analyze cause-and-effect relationships
- Describe the connections between people, places, environments, processes, and events

**Using Numbers and Graphs in Social Studies**

- Analyze information from maps, tables, charts, photographs, and political cartoons
- Interpret, use, and create graphs with appropriate labeling, and use the data to predict trends (Example: predict relationships or trends from scatterplots or line graphs)
- Expressing text into visual form (Example: charts, graphs, tables, etc)

### Additional Skills to Work On

Scoring into the Green Zone on the GED Ready® practice test shows that you are likely to pass the GED® test. In order to progress into the Green Zone, consider the following:

Strengthen the skills listed in the Red and Yellow Zones and apply them at a basic level of proficiency, with a particular focus on improving the following Yellow Zone skills:

- Determine the clearly stated details in primary and secondary sources, and use this information to make logical inferences or valid claims
Determine the central ideas or information of a primary or secondary source document
Determine the meaning of words and phrases used in a social studies context
Determine the difference between fact and opinion in a primary or secondary source document
Pull specific evidence from a document or other source to support inferences or analyses of given processes, events, or concepts
Describe people, places, environments, processes, and events, and the connections between and among them
Analyze cause-and-effect relationships, including those with multiple factors
Analyze numerical and technical materials (for example, charts, research data) and written materials on a common topic
Analyze information presented visually, for example, in maps, tables, charts, photographs, political cartoons, etc.
Put numerical information found in a written source into tables, graphs and charts, and express numerical information in words
Interpret, use and create graphs with appropriate labeling, and use the data to predict trends
Show how dependent and independent variables are represented on a graph. Analyze and communicate how the variables are related to each other
Recognize the difference between when one event or action causes another and when two or more events or actions are correlated with each other
Calculate the mean, median, mode, and range of a set of data

Develop the following additional skills:

- Determine how authors reveal their points of view or purposes in historical documents
- Compare two sources on the same social studies topic, paying special attention to the differences between them
- Put historical events in chronological order and understand the order of steps in social studies processes (for example, how a bill becomes a law)
- Compare different sets of social studies-related ideas and make judgments about how those ideas create meaning in different arguments
- Identify bias and propaganda
- Analyze how historical circumstances shape an author’s point of view

Please note that your projected score for Social Studies of the GED® test is valid for 60 days from the date you took Social Studies of GED Ready®. In addition, it assumes you took Social Studies of GED Ready® in one sitting, under timed conditions, with no breaks. The projected score is only an indication of your preparedness for the actual GED® test and does not guarantee that you will actually obtain the projected score on the GED® test. See My Scores, “Review My Written Answers” page for detailed descriptions of typical written answers to Extended Response items that would meet the passing standard. Although the study recommendations listed on the “How I Can Score Higher” page may aid you in preparing for the GED® test, following these recommendations alone does not guarantee a positive result on the actual GED® test.
GED Ready® Social Studies Score: 137
Areas for Improvement

• Reading for Meaning in Social Studies
  • Use details to make inferences or claims
  • Compare information that differs between sources
  • Determine the difference between fact and opinion

• Analyzing Historical Events and Arguments in Social Studies
  • Determine which evidence supports an inference
  • Identify bias and propaganda
  • Analyze cause and effect relationships
  • Describe the connections between people, places, environments, processes, and events

Inference
Comparison
Cause & Effect
GED Ready® Social Studies Score: 137
Areas for Improvement

• Using Numbers and Graphs in Social Studies
  • Analyze information from maps, tables, charts, photographs, and political cartoons
  • Interpret, use and create graphs with appropriate labeling, and use data to predict trends (Example: predict relationships or trends from scatterplots or line graphs)
  • Expressing text into visual form (Example: charts, graphs, tables, etc.)

Yes—math has a role in Social Studies!
Skills to Work On

• Determine the clearly stated details in primary and secondary sources, and use this information to make **logical inferences** or valid claims

• Determine the **central ideas** or information of a primary or secondary source document

• Determine the meaning of words and phrases used in a social studies context

• Determine the **difference between fact and opinion** in a primary or secondary source document

• Pull **specific evidence** from a document or other source to support inferences or analyses of given processes, events, or concepts

• Describe people, places, environments, processes, and events, and the **connections** between and among them

• Analyze **cause-and-effect relationships**, including those with multiple factors

• Recognize the difference between when one event or action causes another and when two or more events or actions are correlated with each other
Additional Skills

• Analyze numerical and technical materials (for example, charts, research data) and written materials on a common topic.

• Analyze information presented visually, for example, in maps, tables, charts, photographs, political cartoons, etc.

• Put numerical information found in a written source into tables, graphs and charts, and express numerical information in words.

• Interpret, use and create graphs with appropriate labeling, and use the data to predict trends.

• Show how dependent and independent variables are represented on a graph. Analyze and communicate how the variables are related to each other.

• Calculate the mean, median, mode, and range of a set of data.
Diagnosis: Skills Needed

• Close reading—the ability to sort through the structure of text to extract important details, evidence, and facts
• Engagement with Social Studies texts (noticing, wondering, questioning, relating, thinking, and on occasion, arguing)
• Inference skills (i.e. “reading between the lines”)
• Mathematical reasoning in the Social Studies context
Inference is Process-Driven

The alchemy of inference:
• Using active reading skills (beyond the basics)
• Engaging with the text and/or information presented
  • Questioning
  • Thinking critically
  • Making connections

Students need to be reminded that an inference is not a wild guess!
Teach Inference from Simple to Complex

Inference = Finding the Clues

<table>
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<th>From Simple to</th>
<th>Complex</th>
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</thead>
<tbody>
<tr>
<td>Pictures/Advertisements</td>
<td>Longer, more intricate passages – fiction/</td>
</tr>
<tr>
<td>Comics</td>
<td>mysteries</td>
</tr>
<tr>
<td>Sentences</td>
<td>Longer, more intricate passages – nonfiction</td>
</tr>
</tbody>
</table>
Sample Questions

1. What do you see?
2. What do you know about excuses on not having your homework done?
3. What does the student mean when he says, “I ate my homework.”?
How Did Our Test-Taker Fare with Operational Testing?

- GED® Social Studies test score: 134
- The operational exam feedback identified the following areas as needing improvement:
  - Reading for Meaning in Social Studies
  - Analyzing Historical Events and Arguments in Social Studies
  - Using Numbers and Graphs in Social Studies
- Sound familiar? It should…
What Instructors Need to Know: Mathematical Reasoning
### GED Ready® - Mathematical Reasoning

#### My Score: 136
TOO CLOSE TO CALL
Test Date: 01/25/2018

#### How I Can Score Higher

<table>
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<tr>
<th>Skill You Can Improve</th>
<th>Publisher Study Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Math</td>
<td></td>
</tr>
<tr>
<td>• Find the distance between numbers on a number line using absolute value</td>
<td>Select your study material from the dropdown above to get study recommendations</td>
</tr>
<tr>
<td>• Compute and solve problems with whole numbers, fractions, and decimals</td>
<td></td>
</tr>
<tr>
<td>Geometry</td>
<td></td>
</tr>
<tr>
<td>Skill You Can Improve</td>
<td></td>
</tr>
</tbody>
</table>
Skill You Can Improve

Publisher Study Recommendations

- Construct, and explain data from bar graphs, circle graphs, dot plots, histograms, box plots, tables, scatter plots, and line graphs
- Find the volume and surface area of three-dimensional shapes (Examples: rectangular and right prisms, cylinders, right pyramids). Find the side lengths, radius, or diameter of a three-dimensional figure when given the volume or surface area
- Find the probability of one or more events happening
- Find the side lengths of triangles, rectangles, and polygons when given the area or perimeter

Basic Algebra

Skill You Can Improve

Publisher Study Recommendations

- Solve inequalities and real-world problems that involve them, and graph the solutions
- Add, subtract, multiply, divide, and factor polynomials [Example: \((x + 8)(x + 4)\); factor \(3x^2 + 10x - 8\)]
- Create algebraic expressions to represent problem situations or word-to-symbol translations (Example: write an inequality to match a word problem)

Graphs and Functions

Skill You Can Improve

Publisher Study Recommendations

https://app.ged.com/portal#scoreReport?examResultId=8164333
Skill You Can Improve  
Publisher Study Recommendations

• Recognize a function in a table or graph by determining whether or not there is only one output value for each input value

• Compare functions that are shown in different ways such as tables, graphs, descriptions, equations

• Find the slope of a graph that is made from a problem situation

Additional Skills to Work On

Scoring into the Green Zone on the GED Ready® practice test shows that you are likely to pass the GED® test. In order to progress into the Green Zone, consider doing the following:

Strengthen the skills listed in the Red and Yellow Zones and apply them at a satisfactory level of proficiency, with a particular focus on improving the following Yellow Zone skills:

• Compute with rational numbers
  • Compute with squares and square roots of positive, rational numbers
  • Solve problems involving rational numbers
  • Compute unit rates
  • Solve two-step, arithmetic, real world problems that involve percents
  • Compute the area and perimeter of triangles and rectangles
  • Find side lengths of triangles and rectangles, when given area or perimeter
  • Compute volume and surface area of rectangular prisms
  • Find height or side lengths of rectangular prisms, when given volume or surface area
  • Represent, display, and interpret categorical data in bar graphs and circle graphs
  • Represent, display, and interpret data involving two variables in tables and the coordinate plane, including scatter plots and graphs

The GED Ready Math Score: 136
Areas for Improvement (a sample)

• Basic Math (e.g. Number lines and problem solving with whole numbers, fractions, and decimals)

• Geometry (e.g. construct and interpret data from various types of graphs; volume and surface area of three dimensional figures; find side lengths, radius or diameter when given the volume or surface area; basic probability; finding side lengths when given area or perimeter

• Basic Algebra (e.g. multiplying polynomials; solve inequalities; and create basic algebraic expressions to solve problems

• Graphs and functions
What About the Additional Skills?

• These represent skills that the test-taker did NOT consistently demonstrate:
  • Solve problems involving rational numbers
  • Compute unit rates
  • Solve two-step, arithmetic, real world problems that involve percents
  • Compute the area and perimeter of triangles and rectangles
  • Find side lengths of triangles and rectangles, when given area or perimeter
  • Calculate the mean, median, mode, range, and weighted average, and calculate a missing data value, given the average and all the missing data values but one
Diagnosis

• A student whose mathematical reasoning skills stalled after learning only some of the basics
• Use the Performance Level Descriptors (PLDs) to determine where the student is on the math continuum—add more complex topics when you are certain that the foundation is in place
  • For example, students who are confused by a number line are likely to be unable to plot points on a coordinate plane.
• As you determine how to sequence math content, keep in mind what foundational skills are necessary.
What Is Mathematical Reasoning?

Mathematical reasoning is the critical skill that enables a student to make use of all other mathematical skills. With the development of mathematical reasoning, students recognize that mathematics makes sense and can be understood.
Analysis of Math Challenges

In Mathematical Reasoning, items require:

- Application and development of quantitative and algebraic reasoning skills
  - Grounded in real-world examples
  - Beyond rote application of formulas and/or procedural steps
  - The “why” and “how” of math

- Strong critical reading and thinking skills
  - What is the question asking?
  - What heuristics can I use?
  - Is the answer reasonable?
A Couple of Simple Strategies

• Teach a simple approach to solving word problems by using real world examples
• Teach multiple ways to solve problems
• Focus on the WHY to have students become comfortable using reasoning skills
Getting Started: Word Problems
Reading and Reasoning Process

First Read: Read for Understanding

Second Read: Identify a Problem-Solving Process

Third Read: Solve the Problem and Check for Reasonableness

Miller, P. and Koesling, D. “Mathematics Teaching for Understanding: Reasoning, Reading, and Formative Assessment. Danvers, MA
Why Word Problems?

• Require higher order thinking skills—even in their simplest forms
• Require close reading in a mathematical context
• Provide a way to develop skills in determining data sufficiency
• Exercise mathematical reasoning skills
In the Classroom, Emphasize…

• **READING** the problem
• **UNDERSTANDING** the question they are being asked to solve
• **ORGANIZING** the data and determine what is missing
• **WORKING with preliminary ideas** about which math tools they will need for the solution
Close Reading for WPs (1st Read)

• Have students read through a problem once—just to get a sense of what’s being asked
• What’s the problem to be solved?
• For your visual learners, is there a picture that can help them visualize the problem?
Organize the Information

• What is known?
• What does the problem ask to be solved?
• What are the important verbal cues?
  • In the sugar cane example, how is the output of each factory described? (Hint)
  • Is there a pattern? (Hint)
Close Reading for WPs (2\textsuperscript{nd} Read)

• Now, ask students to translate the words into mathematics
• Is all the information supplied in the word problem needed for the solution?
## Finding the cues in text

<table>
<thead>
<tr>
<th>Words/Terms</th>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum, plus, in addition to, total, and</td>
<td>Addition</td>
</tr>
<tr>
<td>Difference, minus, less than, fewer, left remaining</td>
<td>Subtraction</td>
</tr>
<tr>
<td>Product, times, each</td>
<td>Multiplication</td>
</tr>
<tr>
<td>Quotient, divided by, equal groups/parts/shares</td>
<td>Division</td>
</tr>
</tbody>
</table>
Close Reading for WPs (3rd Read)

- Students read a third time to ensure that they are answering the right question
- For example, is the answer to the question the number of items or the dollars spent?
- In the case of our example, it is the output of the first factory (not any of the others)
Using Graphic Organizers for Word Problems

Graphic organizers allow students to:

• sort information as essential or non-essential
• structure information and concepts
• identify relationships between concepts
• organize communication about an issue or problem
• utilize experiences as a starting point of the problem-solving process

Zollman, 2011; 2009a; 2009b
A Plus for Using Graphic Organizers

Instructors can use graphic organizers as inputs to…
• Diagnose skills demonstrated and skills needed
• Implement learning strategies in the classroom
Meeting The Challenge

• Increase instruction on problem-solving strategies
• Increase emphasis on geometric and algebraic thinking
• Provide instruction in higher-order mathematics
• Shift focus from “rules or processes” of mathematics to deeper understanding of “why”
• Incorporate close-reading strategies into the math classroom
• Have high expectations of all students
And Our “Too Close to Call” Test-Taker?

- The Math test score was 135—completely in line with the feedback from the GED Ready exam
- The operational exam feedback identified overlapped with the areas needing improvement on the GED Ready—Basic Math, Geometry, Basic Algebra, Graphs & Functions…
- Sound familiar?
What Instructors Need to Know: Science

Same Skills…Different Context
Overview of Science Test

• Content
  • Life Science – 40%
  • Physical Science – 40%
  • Earth and Space Science – 20%

• Themes
  • Human Health and Living Systems
  • Energy and Related Systems

• Science Practices – reasoning and thinking scientifically

• Question types – Technology-enhanced items
GED Ready® - Science

My Score: 141
TOO CLOSE TO CALL
Test Date: 04/12/2018

How I Can Score Higher

Reading for Meaning in Science
Skill You Can Improve
• Understand symbols, terms, and phrases in science
• Understand and explain information from science readings

Publisher Study Recommendations
Select your study material from the dropdown above to get study recommendations

Designing and Interpreting Science Experiments
Skill You Can Improve
• Understand and apply science theories and processes
<table>
<thead>
<tr>
<th>Skill You Can Improve</th>
<th>Publisher Study Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Decide whether conclusions are supported by data</td>
<td></td>
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<tr>
<td>• Make predictions based on data</td>
<td></td>
</tr>
<tr>
<td>• Identify and improve hypotheses for scientific investigations</td>
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</tbody>
</table>

Using Numbers and Graphics in Science

<table>
<thead>
<tr>
<th>Skill You Can Improve</th>
<th>Publisher Study Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use numbers or symbols to display science information (Examples: use chemical symbols for elements or provide a numeric answer from interpreting a graph or chart)</td>
<td></td>
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<tr>
<td>• Apply science formulas (Example: $s = d/t$)</td>
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<tr>
<td>• Explain different ways in which scientific information is presented (Examples: tables, charts, diagrams)</td>
<td></td>
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</tbody>
</table>
Additional Skills (Selected)

- Identify and refine hypotheses for **scientific investigations**
- Pull specific **evidence** from a written source to support a finding or conclusion
- **Make a prediction** based on data or evidence
- **Make judgments** about whether theories or conclusions are supported or challenged by data or evidence
- **Express scientific information** or findings using numbers or symbols
- Understand and explain **written scientific presentations**
GED Ready Science Score: 141
Areas for Improvement

• Reading for Meaning in Science
• Designing and Interpreting Science Experiments
• Using Numbers and Graphics in Science
Diagnosis

Required: Extracting important details, evidence, and facts
• Develop close reading skills (an essential)
• Practice engaging with Science texts (noticing, wondering, questioning, relating, thinking, and on occasion, arguing)
• Practice “reading between the lines” (aka inference)
How Did Our Test-Taker Fare with Operational Testing?

• GED® Science test score: 143
• The operational exam feedback identified the following areas as needing improvement
  • Reading for Meaning in Science
  • Designing and Interpreting Science Experiments
  • Using Numbers and Graphics in Science

Sound familiar? It should...It’s the same feedback from the GED Ready®!
A Few Takeaways...
A Few Takeaways

• Expand the horizons in your classroom—really promote the idea that there are many effective ways to do things—whether it is writing, problem-solving, or thinking analytically or scientifically.

• Be willing to “repeat teach”—once is not enough when students are learning a concept.

• Flow with the plateaus—no matter what we wish would happen, learning and skill development are *not* linear.

• Remembering that *learning* is iterative and integrative will enable you to expect the best and have your students achieve their best.
https://ged.com

Welcome to the home of the official GED® test. Find everything you need to earn your high school equivalency diploma right here.
Questions?
Concerns?
Thank you!

Communicate with GED Testing Service®
communications@ged.com